

Patent Claims

1. Receiver circuit having
 - 5 - an optical receiving device,
 - a plurality of amplifiers which are connected to the receiving device, and
 - circuit means for individually activating and deactivating the individual amplifiers,
 - 10 - in which the amplifiers each differ from one another in at least one parameter, and
 - in which only one amplifier is ever activated at a given point in time and the other amplifiers are deactivated.
- 15 2. Receiver circuit according to Claim 1, in which the amplifiers each have a connection for providing a supply voltage, and the circuit means switch the supply voltage on or off for the purpose of individually activating and deactivating the individual amplifiers for each amplifier.
- 20 3. Receiver circuit according to Claim 1, in which the amplifiers each have an input (connected to the receiving device) and an output, and the circuit means switch the input on or off for the purpose of individually activating and deactivating the individual amplifiers for each amplifier.
- 25 4. Receiver circuit according to Claim 1, in which the amplifiers each have an input (connected to the receiving device) and an output, and the circuit means switch the output on or off for the purpose of individually activating and deactivating the individual amplifiers for each amplifier.
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5. Receiver circuit according to Claim 1, in which the amplifiers each have a current source, and the circuit means switch the current source on or off for the purpose of individually activating and deactivating the individual amplifiers for each amplifier.
6. Receiver circuit according to Claim 1, in which each amplifier has a plurality of current sources, and all the current sources in an amplifier are switched on or off.
7. Receiver circuit according to Claim 1, in which the amplifiers are each in the form of a transimpedance amplifier.
8. Receiver circuit according to Claim 1, in which the amplifiers each have at least two amplifier cells which are connected in series.
9. Receiver circuit according to Claim 8, in which at least the first of the amplifier cells (which is connected to the receiving device) is in the form of a transimpedance amplifier.
10. Receiver circuit according to Claim 1, in which the individual amplifiers are connected in parallel with one another.
11. Receiver circuit according to Claim 1, in which one parameter in which the individual amplifiers differ is the amplifier's gain.
12. Receiver circuit according to Claim 1, in which the circuit means have a multiplicity of switches which can be set individually.

13. Receiver circuit according to Claim 12, in which the individual switches are MOS transistors.

5 14. Receiver circuit according to Claim 1, in which the circuit means can be adjusted via at least one control line.

10 15. Receiver circuit according to Claim 1, in which the receiving device is a photodiode.

16. Receiver circuit according to Claim 1, in which the individual amplifiers are monolithically integrated in a common chip.